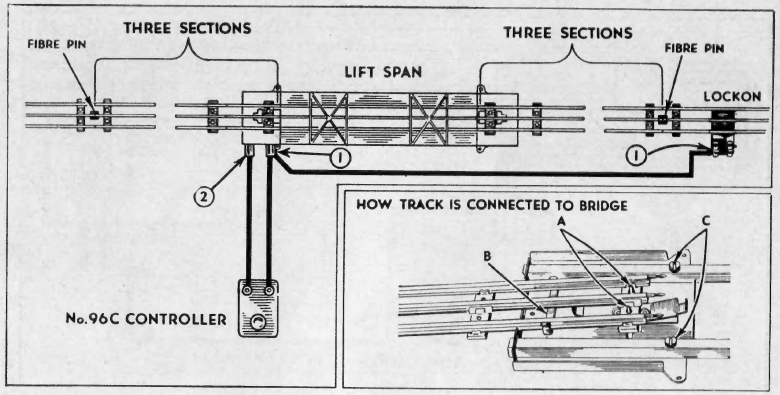

Figure 55—Installation of No. 213 Lift Bridge

No. 213 LIFT BRIDGE

No. 213 Lift Bridge can be used with either "O" or "027" track. The bridge is approximately equal in length to two straight sections. No adjustments or special sections are required. The track is sufficiently flexible to make up for the small differences in length.

The bridge is installed simply by fitting two regular straight track sections to both ends of the bridge so that the holes in the track ties fit over the locating tabs on the base of the bridge piers ("A" in Figure 55). The outside rails snap into clips in the base at "B". Be sure to insert three track pins into the rails at both ends of the bridge. Extra pins to fit both "O" and "027" track are furnished with the bridge.

Note that three-section blocks of track at each end of the bridge are insulated from the rest of the layout by means of fibre pins inserted in the center rail. The purpose of these insulated sections is to halt the train when the bridge span is up. Wiring of the bridge is completed by running a wire between post No. 1 and clip No. 1 of a track lockon placed outside of the insulated bridge approach section.

The action of the bridge is started by pressing the button of No. 96C Controller which is wired to the two binding posts on the bridge. As the bridge starts to rise power is cut out of the bridge approach sections halting the train. After the lift span reaches its highest position the action is reversed automatically and the bridge descends. After the lift span is once more in place the approach sections are energized allowing the waiting train to restart.

NOTE: When operating a layout with the Lift Bridge disconnect the locomotive reversing unit, as shown on page 6. Otherwise it will trip to neutral position as the train enters the insulated block and the train will not restart automatically.

If the bridge is actually used to span a chasm and to provide the extra clearance in raised position, the base U-channel can be removed. First fasten the bridge piers with 3 No. 4 screws on each end of the bridge. Then raise the bridge, remove 2 screws "C" and slide the U-channel out.

By installing a 153C or a 145C contactor as described on page 20, instead of the 96C Controller, it is possible to obtain operation so that the weight of the train passing over the contactor will start the bridge motor. Pressing the controller or the contactor again, once the bridge starts coming down will stall the motor. The contactor should be placed far enough away from the insulated bridge approach so that the waiting train does not keep pressing the contactor.

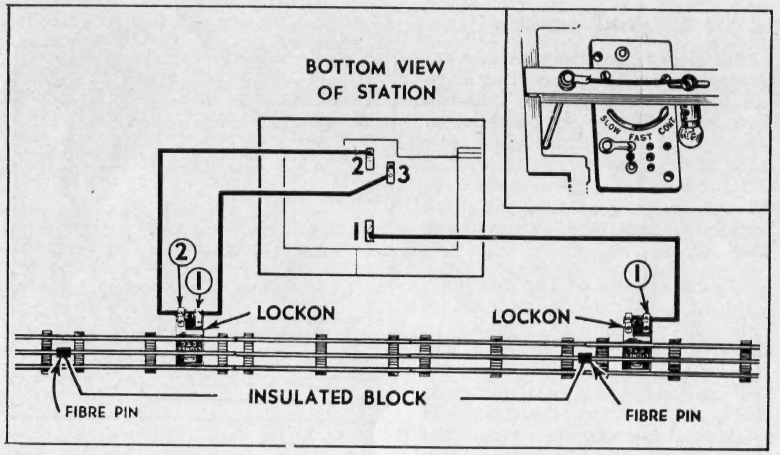

Figure 56—How to Install No. 132 Automatic Station

No. 132 AUTOMATIC PASSENGER STATION

Lionel No. 132 Station is equipped with automatic train control which stops and restarts the train in front of the station. The station is located anywhere along a straight stretch of track. Note that an insulated block consisting of three or four sections of track is placed directly in front of the station. Two track lockons are used in this installation, one placed inside the insulated block, and one outside, and are wired to the clips on the bottom of the station as shown in Figure 56.

The length of time a train remains standing in front of the station is regulated by a control lever located underneath the roof of the station as shown in the inset of Figure 56. The simplest way to adjust the station is to start with the control lever at "Continuous" position and gradually move it toward "Slow". Allow the train to make several circuits in each position of the lever before moving it to a new spot.

NOTE: Don't forget to disconnect the reversing unit in the locomotive (See page 6). Otherwise it will trip to neutral position when the train enters the insulated block and the locomotive will not restart automatically.

No. 30 WATER TOWER

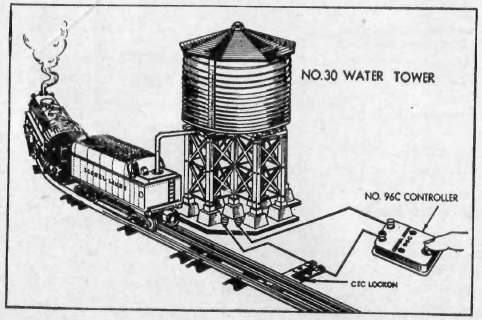

Figure 57—How to Connect Water Tower

No. 30 Water Tower is wired either to a pair of fixed voltage terminals of a transformer or directly to track by means of a Lockon. (See Fig. 57).

To operate the Water Tower press No. 96C Controller button. The spout will drop to "fill" the water tank in the tender. When the button is released the spout will lift. If operation of water tower is sluggish raise track voltage slightly before pushing button.